

**Tuolumne County
Multi-Jurisdictional
Hazard Mitigation Plan
2018 Update**

**Annex R:
Tuolumne Band of
Me-Wuk Indians**

DRAFT – December 4, 2017



Tuolumne County Multi-Jurisdictional Hazard Mitigation Plan

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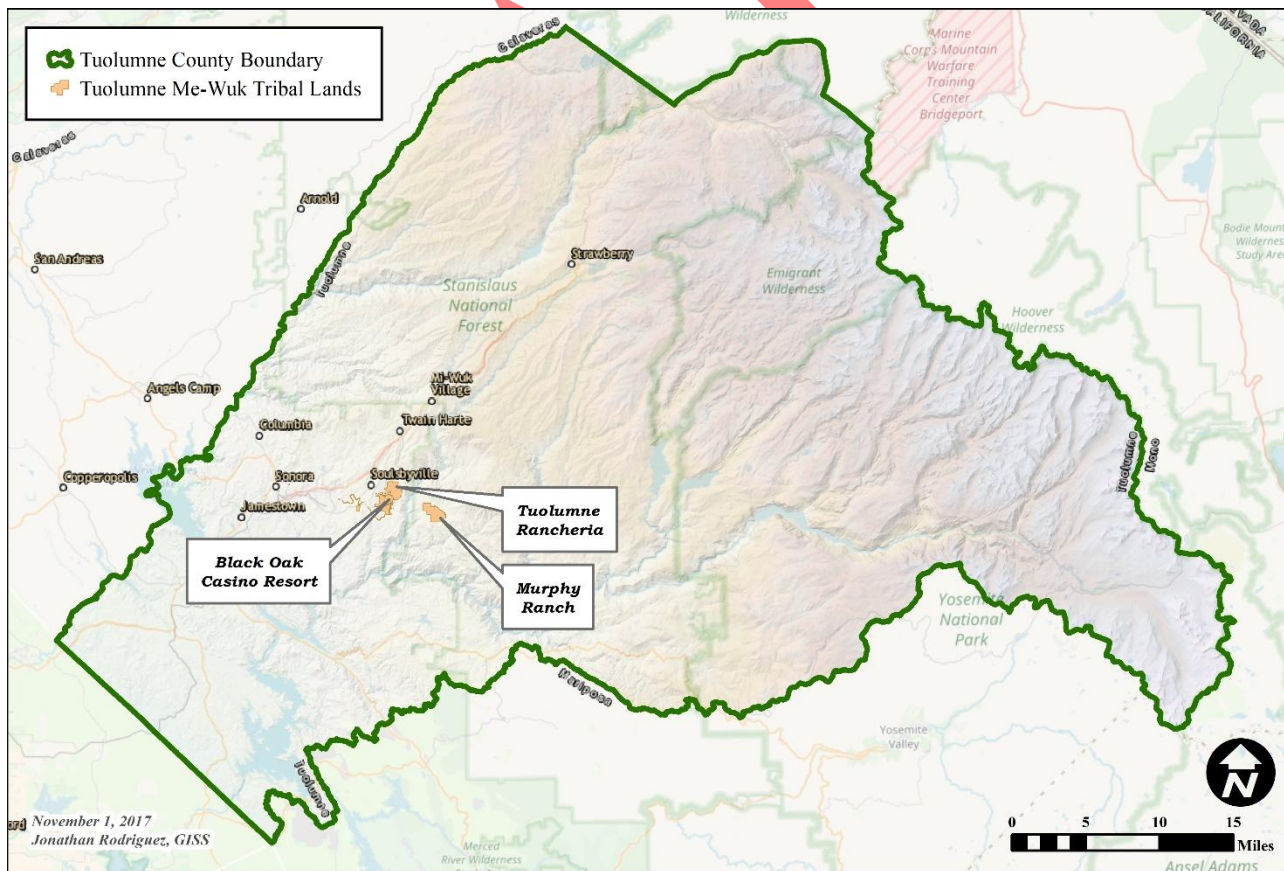
Tuolumne County Multi-Jurisdictional Hazard Mitigation Plan

I. JURISDICTION PROFILE

The Tuolumne Band of Me-Wuk Indians is a sovereign nation that is dedicated to promoting the health, safety and welfare of the Indian people and maintaining social and economic stability through self-reliance. The Tuolumne Band of Me-Wuk Indians is a federally recognized tribe of Me-Wuk people. They are governed by a democratically elected tribal council.

The Tuolumne Rancheria is a federal Indian reservation in Tuolumne County comprised of 2,067 acres of tribal trust and tribally owned fee lands located at the western base of the Sierra Nevada. Established in 1910, the population on tribal lands in 2017 was approximately 234 people.

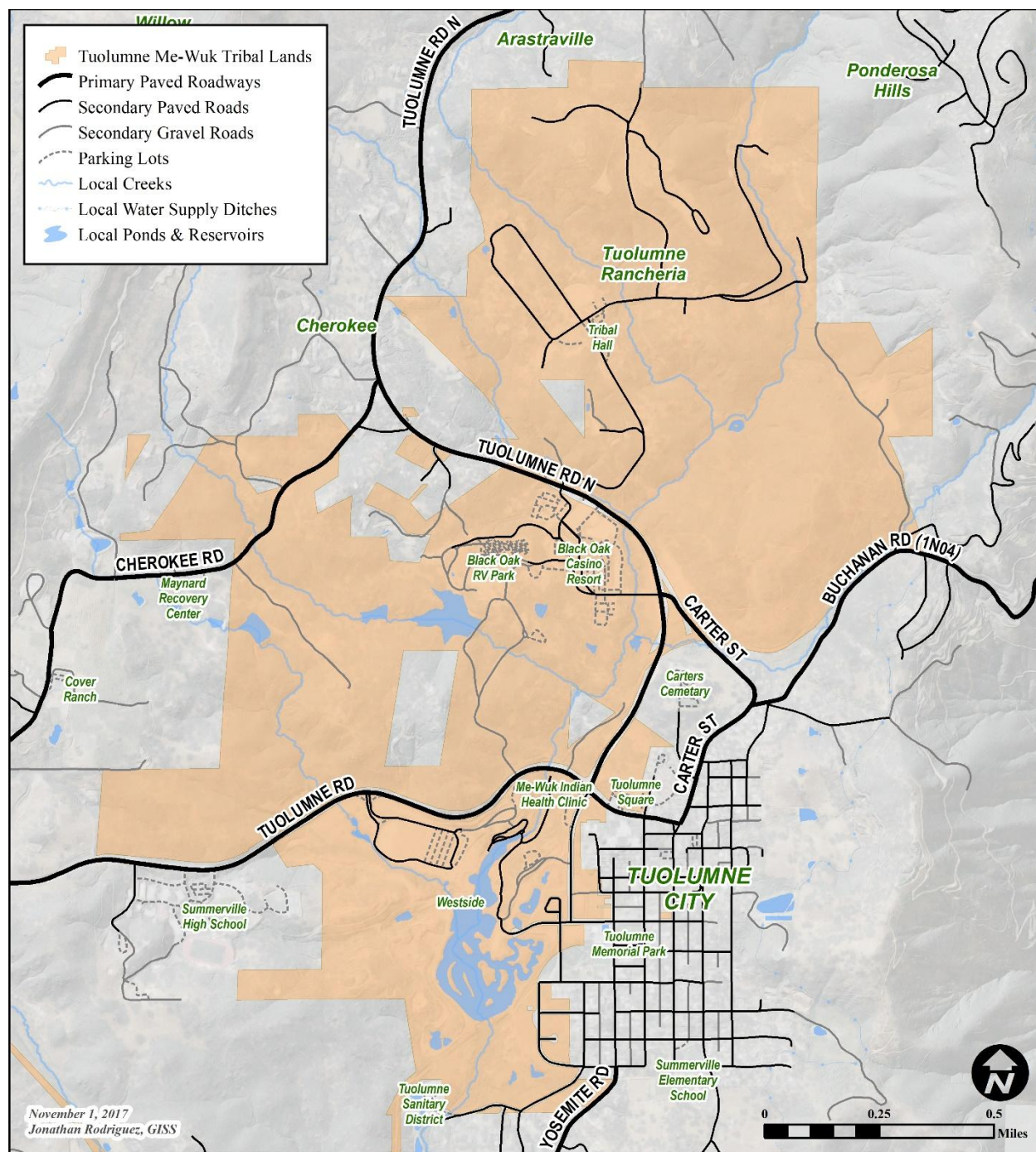
The Tuolumne Band of Me-Wuks runs a fully operational government that includes Tribal Administration, Planning and Development, Fire, Environmental, Housing, Social Services, Cultural, Fiscal, Public Safety and Human Resources departments. The Tribe owns and operates the Black Oak Casino and Resort in Tuolumne. The Tribe also operates a health clinic, the Tuolumne Economic Development Agency (TEDA), the Bear Creek Gas Station, the Black Oak Resort Hotel and Conference Center and a newly opened RV Resort.



Location of Tuolumne Me-Wuk Tribal Lands within Tuolumne County (November 2017)



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Close-Up of Tuolumne Me-Wuk Tribal Lands near Tuolumne City (November 2017)



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II. RISK ASSESSMENT

A. DMA 2000 Requirement

DMA Requirement §201.6(c)(2)(i):	The risk assessment shall include a description of the type of all natural hazards that can affect the jurisdiction.
DMA Requirement §201.6(c)(2)(i):	The risk assessment shall include a description of the location and extent of all natural hazards that can affect the jurisdiction. The plan shall include information on previous occurrences of hazard events and on the probability of future hazard events.
DMA Requirement §201.6(c)(2)(iii):	For multi-jurisdictional plans, the risk assessment must assess each jurisdiction's risks where they vary from the risks facing the entire planning area.

A. Jurisdiction Specific Risks

While a detailed hazard description and analysis can be found in the individual hazard profiles found in Volume 1 of this plan, as outlined below, the Tribe is susceptible to the following hazards.

Jurisdiction	Earthquake	Drought	Tree Mortality	Wildfire	Extreme Weather	Flood	HazMat
Tuolumne Rancheria	X	X	X	X	X	X	X

Hazard Specifics: The Tuolumne Tribal Community has been rated as a community at high risk for fire by the Bureau of Indian Affairs, Pacific Region as well as within the Tuolumne Community Wildfire Protection Plan. This is because it is located in a Wildland Urban Interface area and because the lands surrounding the tribal community (U.S. Forest Service, U.S. Bureau of Land Management, and private lands) have a very heavy fuel load.

Periodic evacuation of tribal residents have occurred due to wildland fires. As there is only a single access road in which to enter and exit the main residential community, evacuation of residents during a wildland fire would be a hazard in itself.

The Tribal community is located below the normal snowline of 3,000 feet elevation, and has been subject to flooding along waterways. Similarly, the terrain rises gently within and offers little risk of landslides. There are several geomorphic schisms within the tribal community that contain reliable water supplies, so while the Tribe has yet to see an effect on area wells, Tribal lands face risk during periods of drought.



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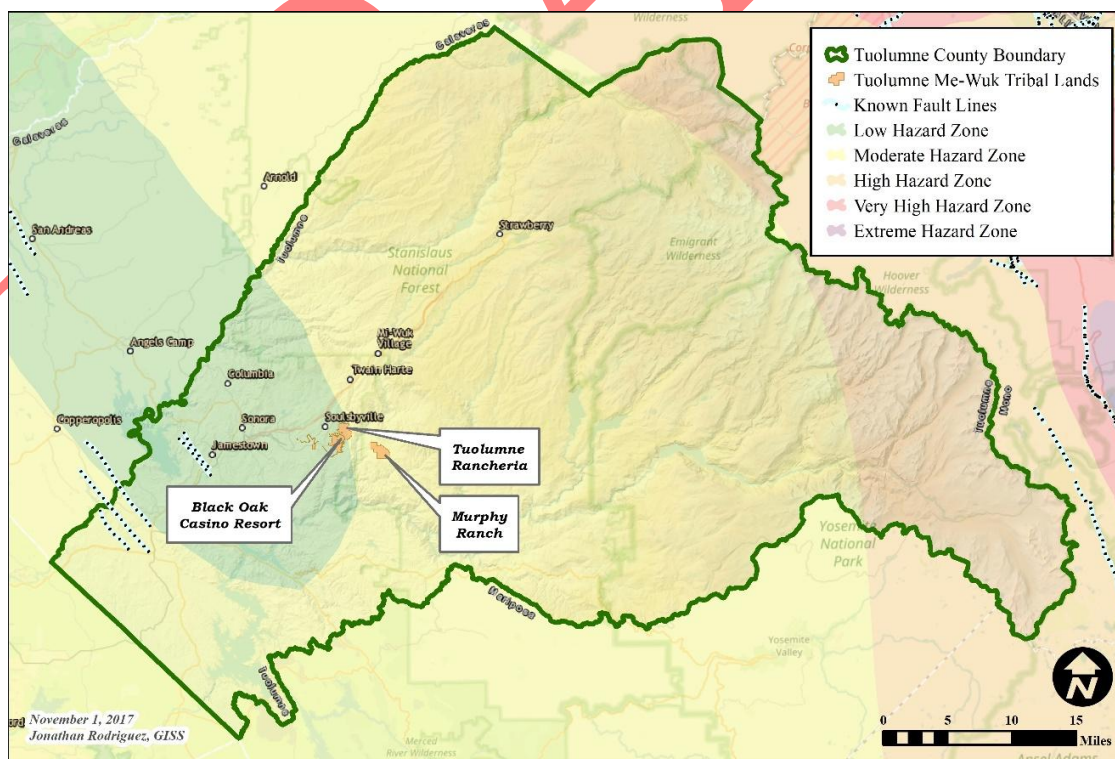
B. Jurisdiction Specific Hazard Event History

Volume 1 contains a detailed hazard history and profile for the entire planning area. The following events are specific to the Tuolumne Tribal community or have occurred in close proximity:

Earthquake History

Historically, while earthquake activity in Tuolumne County is significantly below the California state average, it has been identified as a high risk. USGS shows that there is a 47.73% chance of a major earthquake within 50km of Tuolumne County within the next 50 years. As outlined below, a total of 5 historical earthquake events with recorded magnitudes of 3.5 or greater occurred in or near (50 Miles) Tuolumne County this past century. The most recent earthquake was a 3.3 magnitude in March, 2017.

Date	Description	Distance from Sonora	Impacts
March 26, 1872	7.6 – 8.0 Magnitude	Epicenter Unknown	Unknown
June 25, 1933	6.1 Magnitude	49.6 Miles	Unknown
June 10, 1965	3.5 Magnitude	42.6 Miles	None
August 10, 1975	4.0 Magnitude	44.3 Miles	None
August 9, 1983	4.0 Magnitude	40.8 Miles	None
March, 2017	3.3 Magnitude	25 Miles	None

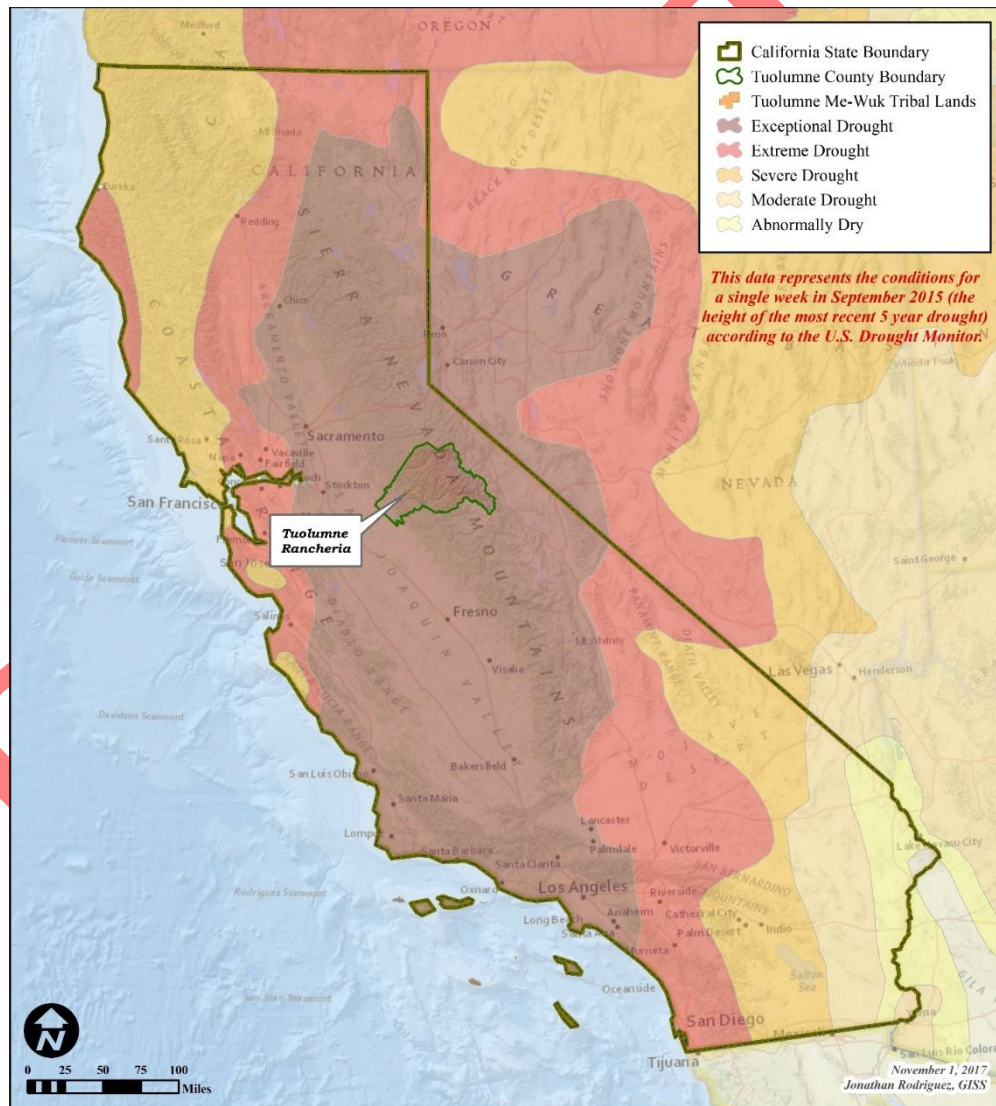


Local Seismic Hazard Map (USGS Long-Term Model, 2014)



Drought History

Periods of drought can have significant environmental, agricultural, health, economic and social consequences. Drought can also reduce water quality, because lower water flows reduce dilution of pollutants and increase contamination of remaining water sources. In a rural area, such as Tuolumne County, these affects are seen on ground water quantity. The Tribe is in the process of creating a Drought Contingency Plan which will be added to this Multi-Jurisdictional Hazard Mitigation Plan when completed. Wildfires are typically larger and more severe in periods of drought due to the lower fuel moisture content.

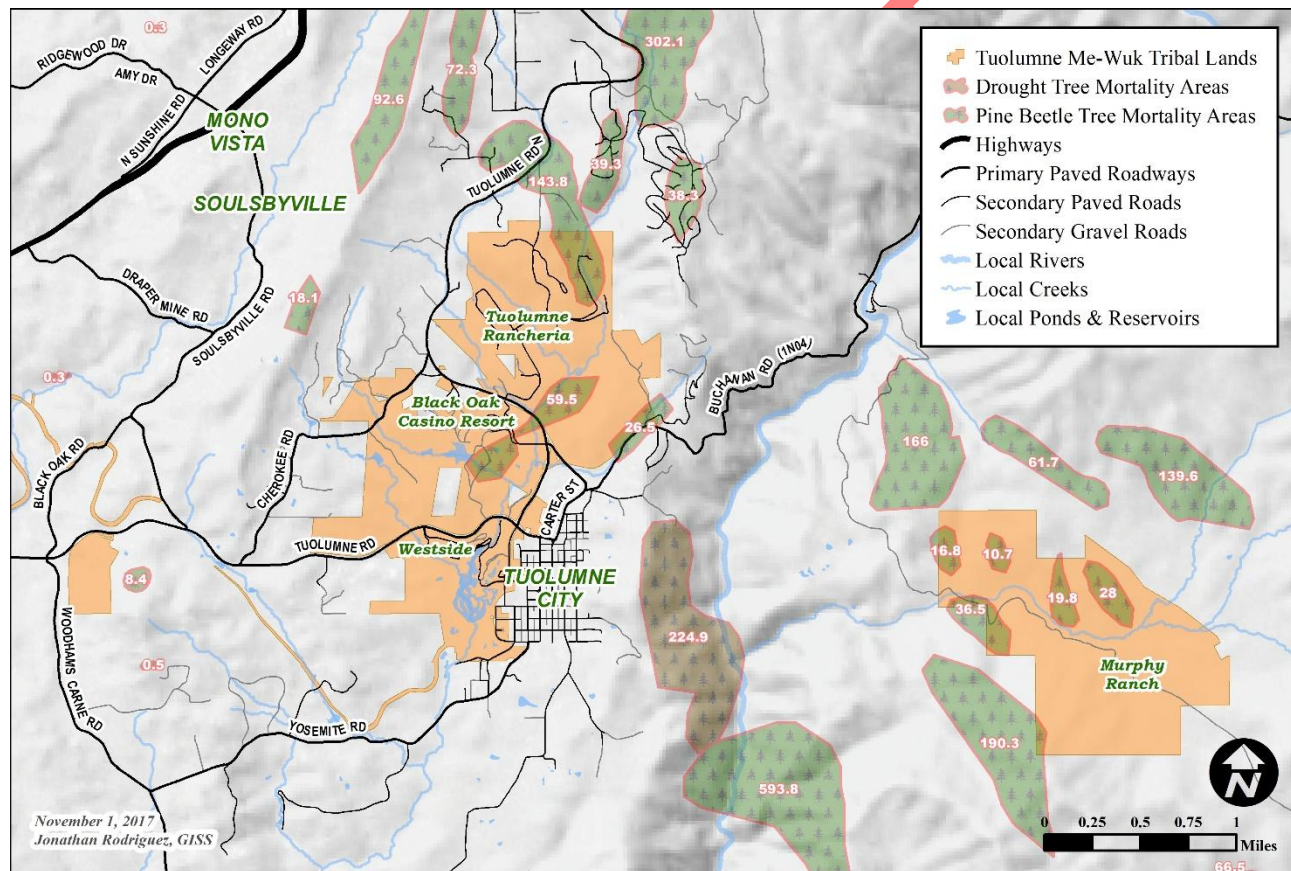


Example of Recent Drought Conditions affecting California (USDM, September 1, 2015 Sample)



Tree Mortality History

Since March 2015, the Tribe has experienced an increase of tree mortality due to forest pests as a result of drought and climate change. Dead trees are safety hazards for public and property and the Tribe has worked with local County OES, statewide agencies such as Cal OES and CalFire along with Federal agencies such as the Bureau of Indian Affairs, FEMA, EPA and USFS on assessment and recommendations for removal and or reforestation. Concentration of removal of high hazard trees that would impact residences and infrastructure has occurred.



Example of Local Area Drought & Bark Beetle Caused Tree Mortality with Acreage (USFS, 2015)

Wildfire History

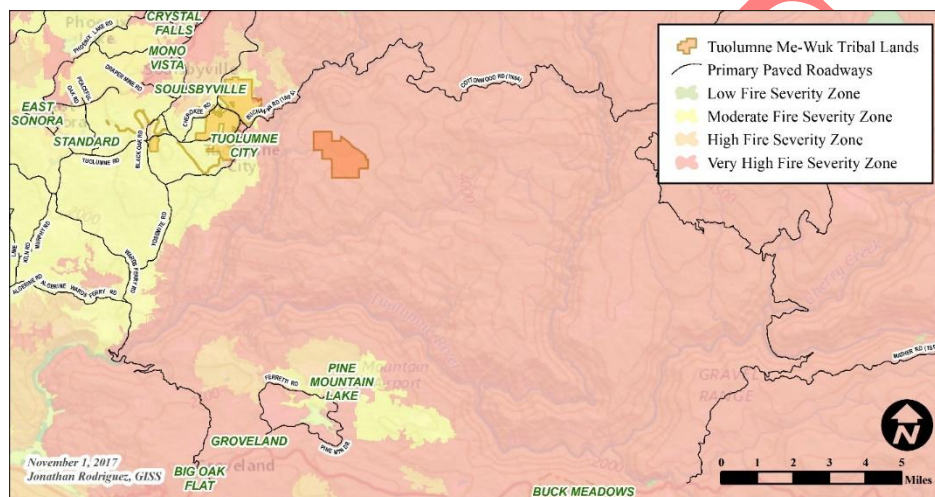
Numerous small fires occur on an annual basis in and around the Rancheria. The weather, topography and fuels in the area make fire a constant threat for typically 6 months a year. While a detailed fire history for the entire county can be found in Volume 1 of this plan the following is a sample of fires that have occurred in this general vicinity and share similar fuel types, weather, and topography.

Date	Description	Impacts
August 2013	Rim Fire	257,314 acres burned 11 residences, 3 commercial structures, 98 outbuildings

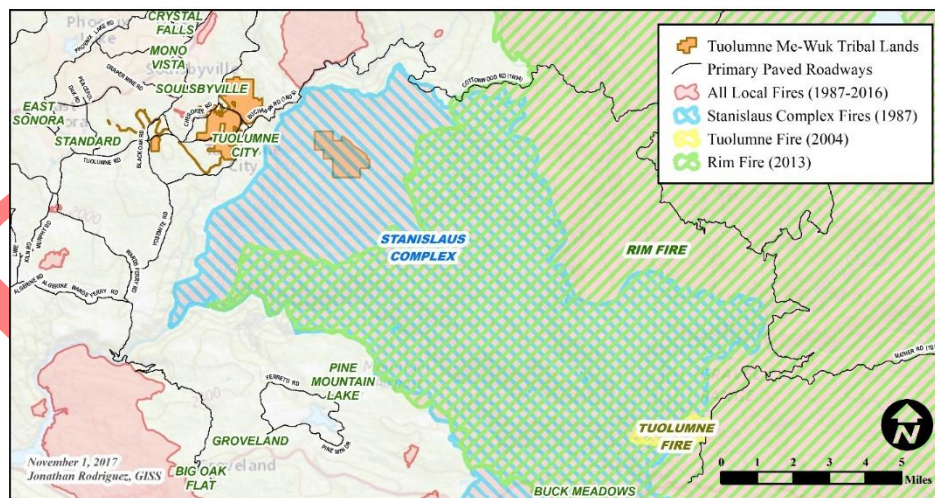


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		destroyed. 10 injuries
September 2004	Tuolumne Fire	750 acres burned and 1 firefighter fatality.
August 1987	Stanislaus Complex	6 major fires burn 145,950 acres, 28 structures, and 1 life was lost.



Local Fire Hazard Severity Zones (Cal Fire 2007)



Local 30-Year Fire History (1987-2016)



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Extreme Weather History

Extreme weather is defined as any unusual, unseasonable, or severe weather event. It is generally considered to include weather that occurs less than 5% of the time; weather at the extremes of the historical distribution. Events include drought, freeze, ice and hail storms, heavy snow falls, high wind, extreme heat, and thunderstorms.

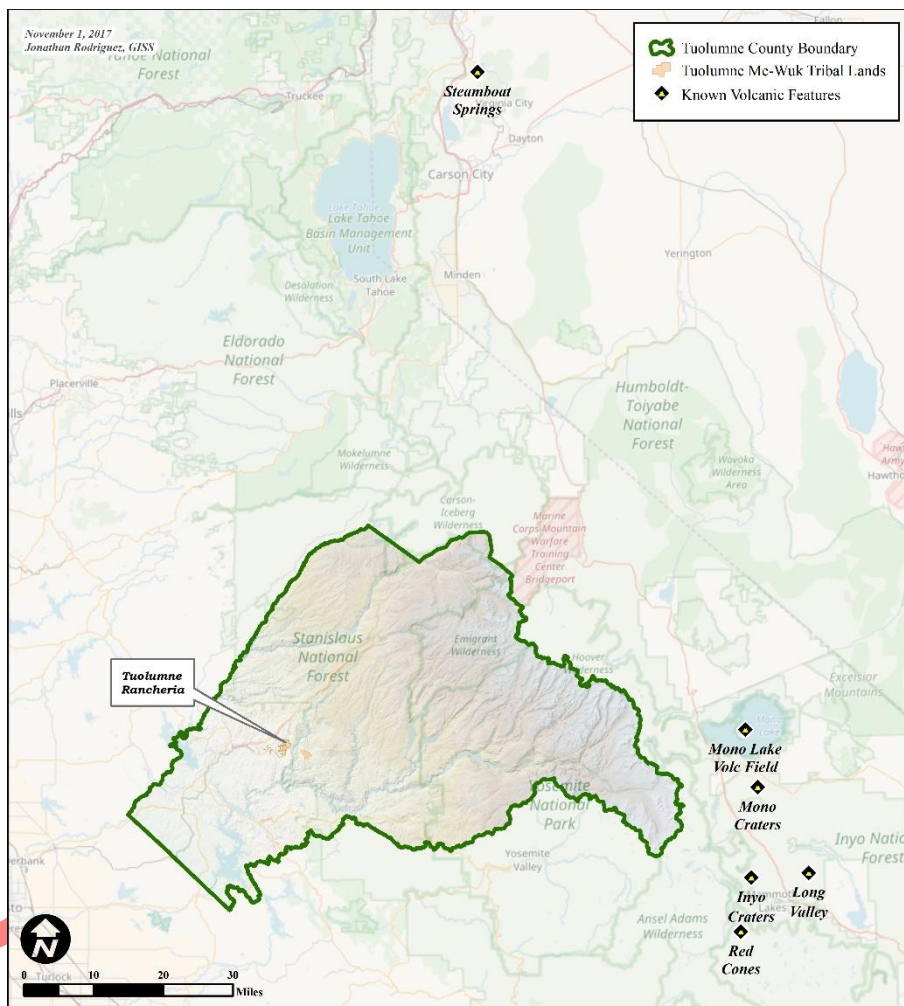
Date	Description	Impacts
Jan - Feb 1969	Low elevation, heavy snow fall	Tree damage and transportation issues.
November 2010	Freeze	Significant damage to crops
March 2011	Winter storm	Minor flooding and significant damage to structures caused by tree falls due to high winds and saturated soil.
Winter 2007, 2008, 2009	Drought	Extremely dry winters resulted in reduced snowpack which impacted groundwater and watershed to tribal lands.
Jan-Feb 2017	Winter Storm	Series of winter storms that brought large amounts of precipitation, snow, and high winds, all in a very short amount of time. Due to the severity and rapid onset of the storms, many of the Tribe's culverts, ditches, and older infrastructure began to fail, causing flooding to roads, wash-outs, and pavement failures on roads.



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Volcanic History

There is no history of volcanic activity in recorded history. The proximity to volcanic active areas does present a remote threat of ash fall and the associated respiratory illnesses.



Closest Known Volcanic Features to Tuolumne Me-Wuk Tribal Lands (USGS, 2005)

D. Jurisdiction Specific Hazard Ranking

Given the past history, the current conditions, and the overall life and property threat to the Tuolumne Band of Me-Wuk Indians, the Planning Committee has deemed the probability and severity of each hazard as follows:

Tuolumne Rancheria	Earthquake	Drought	Tree Mortality	Wildfire	Extreme Weather	Flood	Hazmat
Probability	L	H	H	H	M	L	M
Severity	H	M	M	H	L	L	L

L = Low, M= Medium, H = High



III. VULNERABILITY ASSESSMENT

A. Overview

The vulnerability assessment is a summary of the hazard's impact to the community's vulnerable structures. Community assets and development trends will be identified and assessed with respect to the developed hazard profiles to ascertain the potential amount of damage that could ensue from each identified hazard. This section will include: 1) A description of the critical buildings and infrastructure within the study areas including future building and land use decisions. 2) A general description of the extent of each hazard's impacts to these vulnerable structures, 3) An estimate of the potential dollar losses to vulnerable structures.

B. DMA 2000 Requirements

**DMA Requirement
§201.6(c)(2)(ii):**

The risk assessment shall include a description of the jurisdiction's vulnerability to the hazards described in paragraph (c)(2)(i) of this section. This description shall include an overall summary of each hazard and its impact on the community.

**DMA Requirement
§201.6(c)(2)(ii)(A):**

The plan should describe vulnerability in terms of the types and numbers of existing and future buildings, infrastructure, and critical facilities located in the identified hazard areas.

**DMA Requirement
§201.6(c)(2)(ii)(B):**

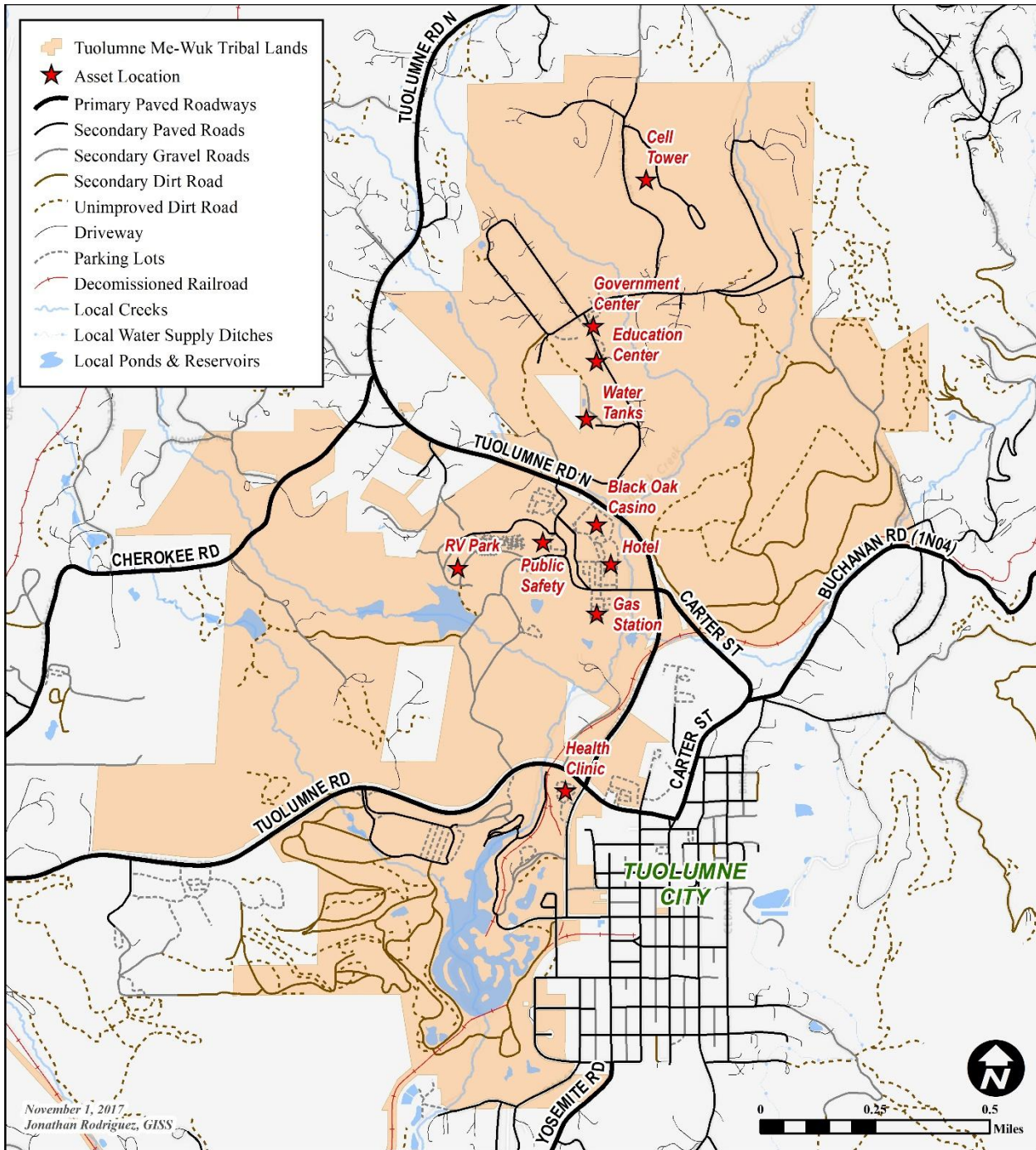
[The plan should describe vulnerability in terms of an] estimate of the potential dollar losses to vulnerable structures identified in paragraph (c)(2)(i)(A) of this section and a description of the methodology used to prepare the estimate.

**DMA Requirement
§201.6(c)(2)(ii)(C):**

The plan should describe vulnerability in terms of providing a general description of land uses and development trends within the community so that mitigation options can be considered in future land decisions.

**DMA Requirement
§201.6(c)(2)(iii):**

For multi-jurisdictional plans, the risk assessment must assess each jurisdiction's risks where they vary from the risks facing the entire planning area.



Jurisdictional Tuolumne Me-Wuk Tribal Assets at Risk to Applicable Hazards (November 2017)

C. Critical Facilities and Infrastructure

Critical facilities and infrastructure are those systems within each community whose incapacity or destruction would have a debilitating effect on the community's ability to recover subsequent to a major disaster. The following critical facility and infrastructure are categorized as follows:



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1. **Emergency Services** for the health and welfare of the whole population (e.g., hospitals, police, fire stations, emergency operations centers, evacuation shelters, schools).
2. **Lifeline Utility Systems** such as potable water, wastewater, oil, natural gas, electric power and communications systems.
3. **Transportation Systems** including railways, highways, waterways, airways and city streets to enable effective movement of services, goods and people.
4. **High Potential Loss Facilities** such as power plants, dams and levees.

D. Jurisdictional Assets at Risk to Applicable Hazards

Critical Facilities and Infrastructure	Address	Building Value	Earthquake	Drought	Tree Mortality	Wildfire	Flood	Extreme Weather	Hazardous Materials
Tribal Administration/ Government Center	19595 Miwu Street Tuolumne, CA	See Note *	X			X		X	
Public Safety Building Fire and Tribal Security EOC	19324 Scotts Brothers Road Tuolumne, CA	See Note *	X			X		X	
Tribal Education Center	19560 Miwu Street	See Note *	X			X		X	
Tribal Health Clinic	18880 Cherry Valley Road Tuolumne, CA	See Note *	X			X		X	X
Tribal Water Tank	19501 Miwu Street Tuolumne, CA	See Note *	X	X		X		X	X
Black Oak Casino/Resort and Conference Center RV Resort	19400 Tuolumne Road North Tuolumne, CA	See Note *	X	X		X		X	X
Transportation Systems	Miwu Street, Hani Drive, Mawe Street, Seven Pines, Nine Sisters, Scott Brothers, Porto Fino Road, Hayden Road, Nonies	See Note *	X		X	X		X	X
Tribal Gas Station	19380 Tuolumne Road N	See Note *	X			X		X	X
Cell Tower	Ridgeline Area	See Note *	X			X		X	

Note *: The Tribe has estimated building values for all tribally owned or managed buildings but has that under separate documents that remain for private use of the tribe.



E. Methodology Used

To determine the number of critical structures and infrastructure at risk, a combination of field surveys, aerial photos, GIS maps and Google Earth software were used. The methodology used in preparing the Vulnerability Estimate consisted of determining the value of critical buildings and facilities from insurance property schedules. Critical infrastructure values were established by using actual replacement costs which were determined by recent comparable replacement projects.

F. Loss Estimations

Dollar losses to buildings and infrastructure vary depending upon the natural hazard occurring and the severity of the hazard. In general, earthquakes can extensively damage a wide area therefore critical structure and infrastructure losses should be estimated at a 100% value. Destruction from flooding takes place in specific areas and the damage is historically less severe than that of an earthquake. Thus, the estimated loss as a result of flooding should be calculated at the 50% level. Damage resulting from wildfires should be calculated at 25% of structural value for those structures located within 300 feet of the wildfire areas. Extreme weather could impact any portion of the jurisdiction. Historical data indicates that these events are extremely localized and a 10% loss should be anticipated.

IV. CAPABILITY ASSESSMENT

A. Legal and Regulatory

1. Regulation

General Police Power - Public Law 280, enacted by Congress in 1953, mandated that the State of California assume criminal jurisdiction on Indian lands, though jurisdictional authority may vary depending on Indian or Non-Indian offenders or victims. PL 280 also provided state jurisdiction over civil disputes between Indians. The Tribe, as sovereign nation, inherently possesses a broad taxing authority, but a very limited tax base. Thus, this authority offers little opportunity to implement hazard mitigation initiatives.

In 2003, however, the Tuolumne Band of Me-Wuk voted to also establish a Tribal Security force. The Black Oak Casino also has a Public Safety Department that includes individuals trained and certified as Emergency Medical Technicians in addition to uniformed security officers. While the Tribal Security and Public Safety officers do not have law enforcement authority, both are trained to perform emergency services, and several are qualified as emergency first responders. The Tribe has a fully staffed (24 hours) Fire Department with EMT's, firefighters and first responders that provide services to tribal lands and outside agencies/communities.

Building Codes And Building Inspection – The Tribe has enacted an ordinance adopting the Uniform Building Code as the standard for all construction of Tribal lands, and requires a Building Permit for all ground-disturbing activities. Additionally, all buildings are inspected



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either by County inspectors or by qualified professionals depending on whether the building is located on Fee land or land held in Trust by the United States Department of Interior, Bureau of Indian Affairs on behalf of the Tribe.

2. Acquisition

Since 1999, the Tribe has acquired over 1,700 acres of land adjacent to or near the original Rancheria. In acquiring these lands, the Band has increased its hazardous fuels reduction efforts to include the newly acquired properties. The most recent acquisition, USFS land adjacent to tribally owned fee lands, and negotiations are ongoing to establish collaborative wildland fire prevention plans. The Tribal land base now totals approximately 2064 acres of land, 792.69 acres of which is in tribal trust.

3. Taxation

The Tribe has the authority to collect taxes on commercial enterprises conducted on Tribal lands. However, this authority offers little opportunity to implement hazard mitigation initiatives.

4. Spending

The Tribe has a 12 man fuels crew that performs fuels reduction on all tribal lands. This program is a result of funding from USDA and the Bureau of Indian Affairs. Grants from these agencies have allowed the Tribe to pay for staff and purchase equipment to expand its hazardous fuels reduction activities.

5. Policies and Programs

The Tuolumne Band of Me-Wuk places a high priority on resource protection and preservation. As a result, the Tribe has approved a number of plans and ordinances related to resource protection and preservation. The following are a few of the relevant documents that have been approved or are being prepared.

Emergency Operations Plan – The Tribe owns and operates Black Oak Casino, one of the largest employers in the County. Both Black Oak Casino and the Tribe's Community Council have published several emergency operations plans, including evacuation plans to provide proven procedures for minimizing loss in an emergency situation. The Tribe has also created a Local Emergency Planning Committee or LEPC that brings together managers of all departments and tribal organizations to create a comprehensive emergency plan for all tribal lands.

Integrated Resource Management Plan (IRMP) – The Tribe received funding and has a draft Integrated Resource Management Plan in place that is currently being revised to address additional lands. The IRMP integrates existing documents and studies, and identify any existing gaps or conflicting information involving biological resources including flora and fauna, forest and soils management, riparian water sources including wetlands, transportation systems, public safety (including fire prevention/protection and security), and other related resources.

Forest Management Plan and Woodcutting Ordinance – Because the Tribe's land is located in a Wildland Urban Interface area, forestry management has been a high priority issue for many years. The Tribe's Forest Management Plan and Woodcutting Ordinance ensure that safety procedures are followed rigorously, and preventative measures are taken to maintain firebreaks and to closely monitor and control brush and other combustible materials. The Tribe has also



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drafted a Pile Burn Plan and sets forth the requirements and procedures for conducting burn piles on all tribal lands.

Transportation Plan – This plan was initially completed in 2000 and was subsequently updated in 2003. This plan identifies the need for constructing a second entrance and exit to/from the Rancheria. The Tribe has recently conducted a Roads Safety Assessment identifying need for alternate emergency access.

Recent Hazard Mitigation Efforts

The Tribe administers an ongoing fuels reduction program that includes systematic brushing along roads and around residences and community facilities. The Tribe also maintains firebreaks around the perimeter of tribal community properties. In addition, under the provisions of the Woodcutting Ordinance, the Tribe issues permits to utility service providers which require the utility to clear and maintain required utility easements. A recipient of a CAL OES Tribal Emergency Equipment Assistance Grant, the Tribe has developed a disaster trailer with supplies to aid the community in an emergency. The tribe is also a recent recipient of a Hazard Mitigation Grant for staffing and equipment to aid first responders in addressing issues on tribal lands.

B. Administrative and Technical

The Tribe has the administrative capability to carry out mitigation actions.

The Tribe employs an Assistant Planner who also serves as the Emergency Manager and a GIS Specialist who is skilled in the use of GIS software. GIS is currently used for hazard mitigation purposes, and further enhancement of these functions is possible.

The Tuolumne Band of Me-Wuk currently operates its own Fire Department and is fully staffed 24 hours a day. It has EMT's, Firefighters and first responders along with various equipment to handle structure, wildland fires and medical emergencies. The Tribe has an agreement with Tuolumne County Fire and the US Forest Service. The Tribal Fire Department owns a water truck that can be deployed to "at-risk" locations, as needed. Additionally, the Tribe has a Tribal Security Department with six patrol officers, 1 Sergeant, 1 Admin, 4 Dispatchers, and 1 Chief. These individuals are trained as first responders. Similarly, there are other staff and Tribal members that are trained as first responders.

C. Financial

The Tuolumne Band of Me-Wuk has limited internal fiscal capability to implement hazard mitigation strategies. Within its available resources, the Tribe recognizes its responsibility for preventative action. As a result, the Tribe already provides funding assistance to County-wide emergency services organizations, including financially supporting the formerly all-volunteer Tuolumne City Fire Department.

As a Federally Recognized Indian Tribe, the Tribe has unique opportunities within the county to compete for Federal grants. In the past few years, the Tribe already has obtained several grants from the Bureau of Indian Affairs (BIA), Cal OES and other Federal agencies in support of emergency services activities.



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D. Political Will of Community

Most residents on the Tuolumne Rancheria are quite knowledgeable about the potential hazards they face, and in recent years, have become more familiar with the practices and principles of mitigation. In addition to funding hazardous fuels reduction activities within the Rancheria, the Tribe has been a leader in advocating for and supporting region-wide efforts to enhance emergency services. The Tribe also has supported efforts of the U.S. Forest Service to improve its hazardous fuels reduction programs, policies concerning the designation of specified areas for use by off-highway vehicles, logging regulations, and other initiatives. The Tribe is NIMS compliant and is working on policies to ensure that all staff take ICS courses through FEMA. Through the development of the Local Emergency Planning Committee or LEPC, Tribal staff and the community understand the importance to prepare, plan and respond to any emergency. The Tribe has set aside funds to allow for training and participates in activities such as the Great Shake Out, Evacuation Exercises of tribal buildings and County emergency exercises. The Tribe has also created a Tribal CERT team that will be available to assist in the event of an emergency.

In view of the Tribe's active leadership as an advocate for forest preservation and fire prevention, coupled with Tuolumne County's history with catastrophic wildland fires, it is expected that the current and future political climates will remain favorable for supporting and advancing future hazard mitigation strategies.

V. MITIGATION STRATEGY

A. DMA 2000 Requirements

DMA Requirement §201.6(c)(3)(i):

The hazard mitigation strategy shall include a description of mitigation goals to reduce or avoid long-term vulnerabilities to the identified hazards.

DMA Requirement §201.6(c)(3)(ii):

The mitigation strategy shall include a section that identifies and analyzes a comprehensive range of specific mitigation actions and projects being considered to reduce the effects of each hazard, with particular emphasis on new and existing buildings and infrastructure.

2013 Jurisdiction Specific Mitigation Actions	Progress Made
Appoint representative to Hazard Mitigation Steering Committee	Tribe has not officially appointed a representative to HAMSC but our Assistant Planner serves as our Emergency Manager and participates in County committees, meetings, trainings or activities.



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Cooperate with the County's Assistant Fire Warden in developing and supporting the County Wildland Pre-Fire Management and Suppression Plan	The Tribe will participate in meeting with the county on developing relationships and supporting the County Fire Plan.
Cooperate with neighboring utility districts as appropriate for the establishment of mutual aid agreements.	Tribe has worked with neighboring utility districts as appropriate.
Cooperate with neighboring utility districts in supporting a program for back-ups and redundancies for electric supply, communications, computer access and general operation of critical facilities.	The Tribe has established its own Local Emergency Planning Committee (LEPC) that supports a program for back-up for electrical supply of all tribal facilities, communications, computer access and general operation of critical facilities. Tribe has worked with neighboring utility districts as appropriate.
Cooperate with neighboring utility districts to enhance water delivery during emergency circumstances.	The tribe maintains its own water supply for the resort and works with neighboring utility districts as appropriate for residential and other buildings. The Tribe has a plan for water delivery during emergency circumstances and has worked with neighboring utility districts as appropriate and feasible.
Cooperate with neighboring utility districts, as applicable, in programs to plan, fund and implement cross connection programs between utility districts.	The Tribe has discussed and is managing programs that will look at feasibility of cross connection programs between utility districts.
Support local and regional efforts to reduce fuels and create fire safe communities.	The Tribe manages a Fuels Crew that continually reduces fuels on tribal lands. This crew is available for hire for projects off of tribal lands in support of local and regional efforts to reduce fuels.
Acquire additional engines and equipment for Tuolumne County Fire Department.	The Tribe operates a fully functioning Tribal Fire Department that is staffed 24 hours a day. Along with the 12 man Fuels Crew, the Fire Program has acquired equipment and vehicles and has MOU's with Tuolumne County, Bureau of Indian Affairs and US Forest Service to provide support. The Tribe also contributes financially to area Fire Departments and volunteer programs.
Additional	Tribe's Housing Department and Emergency Services Staff continue to assist at -risk residents when inclement weather is forecasted. The Tribe prepares for storms with a Winter Weather Plan that identifies key personnel who will assist residents during a storm.



C. Goals, Objectives and Mitigation Actions 2018

Goal 1 **Promote understanding and support for hazard mitigation by key stakeholders and the public within Tribal Community**

Objective 1 Educate key stakeholders and the public to increase awareness of hazards and opportunities for mitigating hazards.

Mitigation Action 1A: Through newsletters, advertisements, speaking engagements and other public contacts, educate the general public and key stakeholders on the issues, responsibilities, and current efforts and successes in the area of disaster preparedness as they impact each agency.

Mitigation Action 1B: Conduct periodic workshops and promotion of the Emergency Notification Systems available to the public to ensure familiarity of the public to warning applications.

Goal 2 **Ensure that future development is protected from natural disasters.**

Objective 2 Limit new development in hazardous areas, and as permissible, build to standards that will prevent or reduce damage.

Mitigation Action 2A: Educate the tribal planning staffs, administrative staffs and elected officials on the importance of keeping current on trends and developments in disaster preparedness.

Mitigation Action 2B: Encourage planning staffs to attend seminars and lectures on naturally occurring hazards so that they may better assist the appropriate governing bodies as they process future developments.

Mitigation Action 2C: In order to better protect life and property, continue to develop a more accurate and comprehensive series of countywide GIS geology, fire, and flood maps and data sets.



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Goal 3 **Build and support local capacity and commitment to Minimize vulnerability to potential hazards.**

- Objective 3.1 Improve existing capabilities to manage emergency situations.
- Objective 3.2 Enhance the safety of residents, students and staff within the community and different tribal entities.
- Objective 3.3: Enhance the communications between agencies to support emergency response
- Mitigation Action 3.1A: In order to ensure that employees are available to assist during a major emergency, develop and adopt a Family Support Plan for all entities.
- Mitigation Action 3.1B: Review and when necessary, update the jurisdiction's Emergency Operations Plans and supporting documents to ensure coordination.
- Mitigation Action 3.1A: Assist with Public Health Emergency Preparedness to plan and prepare for medical and healthcare impacts which would result from all hazards within the County
- Mitigation Action 3.2B: Assist in identifying opportunities for additional evacuation routes within single-access areas
- Mitigation Action 3.2C: Develop a program that would, in emergency situations, enable water districts and water companies to share water resources through interconnections
- Mitigation Action 3.2D: Develop a program to secure water rights for the Tribe.
- Mitigation Action 3.3: Build and maintain communications between County agencies, Special Districts, and the Tuolumne Band of Me-Wuk Indians to assist in the response to emergencies

Goal 4 **Minimize the level of damage and losses to people, existing and future critical facilities and infrastructure due to flooding.**

- Objective 4 Enhance the ability of community assets, particularly critical facilities, located in the 100-year floodplain to handle existing and projected flood levels
- Mitigation Action 4A Work to improve localized flood prone areas through a



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combination of vegetation management and storm drain improvements.

Mitigation Action 4E: Continue to work cooperatively with the state and federal flood related agencies for funding improvements through grant and agency programs.

Mitigation Action 4F: Seek funding sources for and initiate watershed improvement projects for the Tribe.

Goal 5 **Minimize the level of damage and losses to people, existing and future critical facilities and infrastructure due to wildland fires.**

Objective 5.1 Continue the comprehensive approach to reducing the level of damage and losses due to wildland fires through vegetation management, code enforcement, GIS mapping, and planning process.

Objective 5.2 Enhance collaboration amongst all fire agencies and stakeholders.

Mitigation Action 5.1A: In order to assist fire prevention efforts and to better manage large fires when they occur, continue to improve GIS mapping and tracking efforts by gathering and maintaining relevant GIS data layers and imagery and utilizing the best available mapping applications and software.

Mitigation Action 5.1B: Continue to work with the Hwy 108 Fire Safe Council, Yosemite Foothills Fire Safe Council, and SWIFT to initiate fuel thinning and chipping projects in high priority areas adjacent to tribal lands. Collaborate with assignment holders and regulatory agencies in order to utilize prescribed fire on tribally owned lands.

Mitigation Action 5.1C: Work with the Hwy 108 Fire Safe Council, Yosemite Foothills Fire Safe Council, and SWIFT to update as needed the Community Wildfire Protection Plans for the County so that they will continue to:

- Assess the fire hazard in the County
- Prioritize treatment areas
- Enhance collaboration amongst all fire agencies and stakeholders
- Streamline environmental review processes



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- Mitigation Action 5.1D: Develop a wildfire evacuation plan which includes sheltering in place.
- Mitigation Action 5.1E: Work with the Tuolumne Utilities District to improve fire flow, system reliability and redundancy, and increased water supply in their responsibility areas.
- Mitigation Action 5.2A: Encourage participation of all Fire Agencies in the monthly Fire Chief Association meetings and support, when possible, efforts by the Association to improve fire protection and prevention efforts in the County.
- Mitigation Action 5.2B: Encourage participation in cooperative automatic and mutual aid agreements between Tribe, local Districts, and the County.

Goal 6 **Minimize the level of damage and losses to people, existing and future critical facilities and infrastructure due to geological events (earthquakes, volcanoes, landslides, and sinkholes).**

- Objective 6 Continue public education efforts so as to better prepare the Tribal community, residents and employees from the effects of a significant geological event.
- Mitigation Action 6A: Working with Federal, State and local agencies, increase participation in earthquake preparedness activities such as the annual Great California Shake-Out drill

Goal 7 **Limit risk to, and impacts from hazardous materials spills, intentional discharges, illegal disposals, transportation accidents, or system failures**

- Objective 7.1 Continue efforts to manage the use, sale, distribution and disposal of hazardous materials within Tribal community
- Objective 7.2 Improve emergency response efforts in the control and clean-up of accidental spills and releases
- Mitigation Action 7.1A: Educate community members on the dangers associated with household hazardous materials including proper storage techniques



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Mitigation Action 7.1B: Continue efforts to educate applicable employees on the handling, use, storage and disposal of hazardous materials utilized in the workplace

Mitigation Action 7.2A: In coordination with the Environmental Program, develop procedures to enhance the response to Hazardous Material Incidents

Goal 8 **Minimize the level of damage and losses to people, existing and future infrastructure, and critical facilities due to extreme weather**

Objective 8.1 Continue the comprehensive approach to reducing the level of damage and losses due to extreme weather and drought through GIS mapping, planning process, and the removal of dead and dying trees.

Mitigation Action 8.1A: Analyze and remove hazards that threaten public safety due to the cascading effects of drought such as dry wells and tree mortality

Mitigation Action 8.1B: Encourage water agencies to conduct water supply evaluations for each public water system to determine the effect of drought on community water supply

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D. How Mitigation Goals Address Existing and New Buildings and Infrastructure

The following tables demonstrate how the proposed mitigation goals take into account both existing and new buildings and infrastructure.

MITIGATION ACTIONS	EXISTING BUILDINGS AND INFRASTRUCTURE						
	Electrical and Power Infrastructure	Dams and Water Management	Communication Facilities	Critical Roads & Bridges	Essential Service Facilities (Fire, Law, Hospitals)	Agricultural Infrastructure	Public Structures
Goal 1-General Mitigation: Promote understanding and support for hazard mitigation by key stakeholders and the Tribal community.	X	X	X	X	X	X	X
Goal 2-General Mitigation: Ensure that future development is protected from natural disasters.	X	X	X	X	X	X	X
Goal 3-General Mitigation: Build and support local capacity and commitment to minimize vulnerability to potential hazards.		X		X	X	X	X
Goal 4-Flood: Minimize the level of damage and losses to people, existing and future critical facilities and infrastructure due to flooding.	X	X	X	X	X	X	X

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Goal 5-Wildfire: Minimize the level of damage and losses to people, existing and future critical facilities and infrastructure due to wildfire.	X	X	X	X	X	X	X
Goal 6-Earthquake: Minimize the level of damage and losses to people, existing and future critical facilities and infrastructure due to earthquake, landslide and sinkholes.	X	X	X	X	X	X	X
Goal 7- Hazardous Materials: Limit risk to, and impacts from hazardous materials spills, intentional discharges, illegal disposals, transportation accidents, or system failures		X			X	X	X

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MITIGATION GOALS	NEW PROJECTS/BUILDINGS AND INFRASTRUCTURE					
	Residential Subdivisions	Various mixed use projects (residential and commercial)	Ag Clusters (residential, open space, and Ag uses)	Commercial and Industrial Projects	Essential Service Facilities	Public Structures
Goal 1-General Mitigation: Promote understanding and support for hazard mitigation by key stakeholders and the Tribal community.	X	X	X	X	X	X
Goal 2-General Mitigation: Ensure that future development is protected from natural disasters.	X	X	X	X	X	X
Goal 3-General Mitigation: Build and support local capacity and commitment to minimize vulnerability to potential hazards.	X	X	X	X	X	X
Goal 4-Flood: Minimize the level of damage and losses to people, existing and future critical facilities and infrastructure due to flooding.	X	X	X	X	X	X
Goal 5-Wildfire: Minimize the level of						

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damage and losses to people, existing and future critical facilities and infrastructure due to wildfire.	X	X	X	X	X	X
Goal 6-Earthquake: Minimize the level of damage and losses to people, existing and future critical facilities and infrastructure due to earthquake, landslide and sinkholes.	X	X	X	X	X	X
Goal 7-Hazardous Materials: Limit risk to, and impacts from hazardous materials spills, intentional discharges, illegal disposals, transportation accidents, or system failures	X	X	X	X	X	X



VI. MITIGATION ACTION IMPLEMENTATION

A. DMA 2000 Requirements:

DMA Requirement §201.6(c)(4)(i):	The plan maintenance process shall include a section describing the method and schedule of monitoring, evaluating, and updating the mitigation plan within a five-year cycle.
DMA Requirement §201.6(c)(4)(ii):	The plan shall include a process by which local governments incorporate the requirements of the mitigation plan into other planning mechanisms such as comprehensive or capital improvement plans, when appropriate.
DMA Requirement §201.6(c)(3)(iii):	The mitigation strategy section shall include an action plan describing how the actions identified in section (c)(3)(ii) will be prioritized, implemented, and administered by the local jurisdiction. Prioritization shall include a special emphasis on the extent to which benefits are maximized according to a cost benefit review of the proposed projects and their associated costs.
DMA Requirement §201.6(c)(3)(iv)	For multi-jurisdictional plans, there must be identifiable action items specific to the jurisdiction requesting FEMA approval or credit of the plan.

B. Prioritization of Mitigation Actions

The Mitigation actions were prioritized using a system which is outlined below. This system factored in the following components: 1) Probability of Occurrence 2) Effectiveness of Mitigation Actions, 3) Practicality of mitigation action for the jurisdiction based on the STAPLE+E criteria of Social, Technical, Administrative, Political, Legal, Economic and Environmental components. This gave rise to the development of an overall relative risk value that resulted in ratings of HIGH, MEDIUM and LOW for each of the mitigation actions. The resultant prioritization was presented to key stakeholders and lengthy discussions were held to ensure that the results were indeed applicable to the priorities and capabilities of the jurisdictions' served.



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Sample Mitigation Action Prioritization Worksheet

Mitigation Action	Probability of Associated Threat Occurrence Low=1 Med.=2 High=3	Effectiveness of Mitigation Action Minimal=1 Moderate=2 High=3	Practicality (based on STAPLE+E criteria) Low=1 Medium=2 High=3	Relative Risk (Product of Risk Components)
1.A	3	2	3	18

In assessing and evaluating each strategy, the following factors were considered:

- The benefit justified the cost
- The availability of financial resources
- The availability of staff resources
- Impact on County department functions
- Strategies reflect the goals and objectives

C. Action Plan

Once the MJHMP has received formal adoption by the Tuolumne County Board of Supervisors and the Tuolumne Band of Me-Wuk Indians Tribal Council, be used to ensure the Plan is implemented and remains an active and relevant document. Actual implementation may be dependent upon funding availability.

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ACTION PLAN FOR TUOLUMNE COUNTY MULTI-JURISDICTIONAL PLAN

MITIGATION ACTION		IMPLEMENTATION STRATEGY			
ID	DESCRIPTION	RESPONSIBLE DEPARTMENT	FUNDING SOURCES	COMPLETION DATE	PRIORITY
1.A	Educate Public and Stakeholders	P&D Emergency Services - lead	Tribal	Ongoing	Medium
1.B	Conduct workshops	P&D Emergency Services - lead	Tribal	Ongoing	Medium
2.A	Educate Staff	P&D Emergency Services - lead	Tribal	Ongoing	Medium
2.B	Continuing Education	P&D Emergency Services - lead	Tribal	Ongoing	Medium
2.C	Improve GIS Capabilities	P&D Emergency Services - lead	Tribal, Grants	Ongoing	Medium
3.1A	Family Support Plan	P&D Emergency Services – lead	Tribal	Ongoing	Medium
3.1B	EOP Update	P&D Emergency Services - lead	Tribal, Grants	Ongoing	High
3.2A	Public Health Emergency Plan	P&D Emergency Services - lead	Tribal, Grants	Ongoing	High
3.2B	Develop Evacuation Plans	P&D Emergency Services - lead	Tribal	Ongoing	Medium
3.2C	Support Water Resources	P&D Emergency Services - lead	Tribal	Ongoing	Low
3.2D	Water Rights	P&D Emergency Services, Environmental	Tribal, Grants	Ongoing	Medium
3.3	Build and Maintain Communications	P&D Emergency Services – lead	Tribal	Ongoing	Medium
4.A	Improve Flood prone areas	P&D Emergency Services – lead	Tribal, Grants	Ongoing	Medium
4.B	Work Cooperatively with State Flood Agencies	P&D Emergency Services - lead	Tribal	Ongoing	Low
4.C	Seek funding for Watershed projects	P&D Emergency Services – lead	Tribal	Ongoing	Medium
5.1A	Improve GIS	P&D Emergency	Tribal	Ongoing	Medium



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	Mapping and Tracking	Services			
5.1B	Fuel Thinning and Chipping Projects	P&D Emergency Services, Tribal Fire	Tribal, Grants	Ongoing	High
5.1C	Community Wildfire Protection Plan Update	P&D Emergency Services, Tribal Fire	Tribal, Grants	Ongoing	Medium
5.1D	Develop Wildfire Evacuation Plan	P&D Emergency Services, Tribal Fire	Tribal, Grants	Ongoing	High
5.1E	Water Supply/Fire Flow	P&D Emergency Services, Tribal Fire	Tribal, Grants	Ongoing	High
5.2A	Fire Chiefs Association	P&D Emergency Services, Tribal Fire	Tribal	Ongoing	Medium
5.2B	Mutual/Auto Aid	P&D Emergency Services, Tribal Fire	None Required	Ongoing	Medium
6.A	Earthquake Preparedness Exercises	P&D Emergency Services	Tribal, Grants	Fall/yearly	Medium
7.1A	Educate Community on Hazardous Materials	P&D Emergency Services	Tribal	Ongoing	Medium
7.1B	Educate Staff on Hazardous Materials	P&D Emergency Services, Environmental	Tribal, Grants	Ongoing	Medium
7.2A	Improve Response Capabilities	P&D Emergency Services, Public Safety	Tribal, Grants	Ongoing	Medium
8.1A	Analyze and remove hazards	P&D Emergency Services	Tribal	Ongoing	High
8.1B	Conduct Water Supply evaluations	P&D Emergency Services, Environmental, TEDA Water	Tribal, TEDA, Grants	Ongoing	High

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D. Implementation Through Existing Plans and Programs

The Tuolumne Band of Me-Wuk Indians currently uses comprehensive land use planning, capital improvements planning, and building codes to guide and control development within the Tribe. This MJHMP will be provided to those responsible for the Tribe's General Plan development mechanisms to ensure that consistency is maintained. The same holds true whenever substantive changes are made.

Mitigation Actions have been assigned to specific entities. These individual actions will fall under the general administrative oversight of the tribal governing body. Should technical expertise not be available in these agencies, the Tribe's Emergency services program is committed to, when possible, coordinating the resources of the Tribe to assist with implementation of the mitigation actions.

The general administrative oversight of this MJHMP rests with the Tuolumne Me-Wuk Tribal Council.

E. Continued Public Involvement

The Tribe understands the importance of involving the tribal community in the ongoing Hazard Mitigation Plan review and updating process. Resultantly, the following actions will be taken:

- A copy of the MJHMP will be circulated amongst all tribal entities.
- Hard copies of the Plan will be available at the Tribal offices and the Planning and Development Department.

F. Plan Monitoring, Evaluating and Updating

DMA Requirement §201.6(d)(3): A local jurisdiction must review and revise its plan to reflect changes in development, progress in local mitigation efforts, and changes in priorities and resubmit if for approval within 5 years in order to continue to be eligible for mitigation project grant funding.

In order to continue to be an effective representation of each jurisdiction's overall strategy for reducing its risks from natural hazards, the mitigation plan must reflect current conditions. Monitoring and evaluating the plan will occur annually to make certain that the goals and objectives for the Tuolumne Band of Me-Wuk Indians are current and mitigation activities are being carried out.

To ensure that regular review and update of this Multi-Jurisdictional Hazard Mitigation Plan takes place, the Planning and Development Department will communicate with the community council members and tribal staff annually to see if their plan components are up-to-date and meet current realities.



Acronyms

Acronym	Definition
CGS	California Geological Survey
Cal EPA	California Environmental Protection Agency
CalTrans	California Department of Transportation
CAL Fire	California Department of Forestry and Fire Protection
CDF	California Department of Forestry and Fire Protection
CDHS	California Department of Health Services
CFR	Code of Federal Regulations
CGS	California Geological Survey
CISN	California Integrated Seismic Network
CSSC	California Seismic Safety Commission
DFG	State Department of Fish and Game
DHS	Department of Homeland Security
DWR	Department of Water Resources
FEMA	Federal Emergency Management Agency
FIRM	Flood Insurance Rate Map
FMA	Flood Mitigation Assistance
FMP	Floodplain Management Plan
FRAP	Fire and Resource Assessment Program
GIS	Geographic Information System
HMGP	Hazard Mitigation Grant Program
LHMP	Local Hazard Mitigation Plan
NFIP	National Flood Insurance Program
NOAA	National Oceanic and Atmospheric Administration
NPS	National Park Services
OES	Governor's Office of Emergency Services
SEMS	Standardized Emergency Management System
SFHA	Special Flood Hazard Area
USDA	U.S. Department of Agriculture
USGS	U.S. Geological Survey

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Insert Documentation of Tribal Council Approval

DRAFT